

ABSTRACT OF THE DISCLOSURE

A non-volatile memory device is provided which includes a flash memory having a plurality of banks and a bank selection register which can take on states at least equal in number to the number of banks. The bank selection register outputs a signal to point to one of the banks based upon one of the states of the bank selection register. A controller is also provided having a plurality of data buffers corresponding, respectively, to the banks. In addition to word lines, bit lines and memory cells, each bank includes a data register to temporarily hold data to be written to the memory cells. The controller transmits data in the data buffer to the data register of the pointed to bank, while the flash memory writes data held in the data register to the memory cells of another one of the banks.